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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/945,031

08/31/2001

Lawrence A. Booth JR.

INTL-0617-US (P11948)

1681

7590

09/08/2004

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EXAMINER

WU, XIAO MIN

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/945,031	<b>Applicant(s)</b> BOOTH ET AL.	
	<b>Examiner</b> XIAO M. WU	<b>Art Unit</b> 2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (US Patent No. 6,313,816) in view of Feldman (US Patent No. 6,501,230).

As to claims 1, 6, 11, 16, Kojima discloses a method comprising: determining a color gamut (Ar1, Ag1, Ab1, Fig. 4) that a substantial portion of the sub-pixels (e.g. red, green, blue) of an expressed color of light emitting device display (e.g. LED) are able to achieve; and adjusting the drive current (18, 20, Fig. 3) to the sub-pixels to achieve that color gamut (Ar2, Ag2, Ab2, Fig. 4). Kojima further discloses a processor (17, Fig. 3) and storage ((20)

It is noted that Kojima does not specifically disclose that the Led is an organic LED. However, organic Led is well known in the art such as taught by Feldman. It would have been

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obvious to one of ordinary skill in the art to have modified Kojima's correction circuit for the organic LED display because the organic LED and LED are alternative for each other.

As to claims 2, 7, 12, 21, Kojima discloses determining a color gamut that all of the subpixels of an expressed color gamut (e.g. Ar1, Ag1, Ab1) can achieve and adjusting the device current to achieve that color gamut (see Fig. 4).

As to claims 3, 8, 13, Feldman discloses maintaining the gamut substantially constant over the lifetime of the display by suing an aging correction circuit (112, Fig. 2).

As to claims 4, 9, 14, Kojima discloses maintaining the gamut substantially constant by mixing a first or second subpixel color with an expressed color pixel to adjust the color of the expressed color pixel (col. 7, lines 28-32).

As to claims 5, 10, 15, Kojima discloses mixing colors of the a tricolor space to achieve the color gamut (col. 7, lines 45-66).

4. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (US Patent No. 6,313,816) in view of Feldman (US Patent No. 6,501,230) as applied to claim 16 above, and further in view of Adler (US Patent No. 5,532,550).

As to claim 17, it is noted that both Kojima and Feldman does not specifically disclose the sub-pixels include conjugated polymers. Adler is cited to teach an organic LED display device including the sub-pixels include conjugated polymers (16, Fig. 4). It would have been obvious to one of ordinary skill in the art to have modified Kojima as modified with the structure of the organic LED as taught by Adler because Adler provide low resistance conductor and line conductors at a plurality of points (col. 3, lines 25-32).

As to claim 18, Adler discloses the sub-pixels include a polymer film (16).

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As to claim 19, Adler discloses the display includes sub-pixels in the forms of a stacked layer (17, 18, 19, Fig. 4).

As to claim 20, Adler discloses a substrate wherein the sub-pixels are distributed side-by-side across the substrate (12a, 12b, Fig. 4).

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US Patents 6,0973,67, 6,120,909, 6,285,124, 6,486,923, 6,639,574 are cited to teach a light-emitting device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiao Wu whose telephone number is (703) 305-4721.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**


**(703) 872-9306**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377

xw

September 6, 2004

  
**XIAO WU**  
**PRIMARY EXAMINER**  
**ART UNIT 2674**